



PATENT APPLICATION

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re application of

Docket No: Q76385

Seimei USHIRO, et al.

Appln. No.: 10/631,894

Group Art Unit: 1745

Confirmation No.: 9808

Examiner: WALKER, Keith D.

Filed: August 1, 2003

For: FUEL CELL SYSTEM, FUEL PACK, CAMERA, PORTABLE TELEPHONE WITH
CAMERA AND PORTABLE TERMINAL

SUBMISSION OF APPEAL BRIEF

MAIL STOP APPEAL BRIEF - PATENTS


Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Submitted herewith please find an Appeal Brief. A check for the statutory fee of \$500.00 is attached. The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account. A duplicate copy of this paper is attached.

Respectfully submitted,

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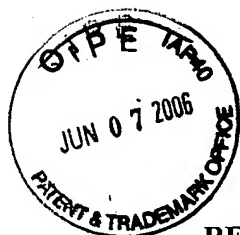

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Date: June 7, 2006



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APPEAL BRIEF UNDER 37 C.F.R. § 41.37

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P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

In accordance with the provisions of 37 C.F.R. § 41.37, Appellant submits the following:

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I. REAL PARTY IN INTEREST

The real party in interest in this appeal is Fuji Photo Film, Co., Ltd. of Japan. The assignment was previously submitted and was recorded on August 1, 2003 at Reel 014359 and Frame 0554.

II. RELATED APPEALS AND INTERFERENCES

To the knowledge and belief of Appellant, the Assignee, and the undersigned, there are no other appeals or interferences before the Board of Appeals and Interferences that will directly affect or be affected by the Board's decision in the instant Appeal.

III. STATUS OF CLAIMS

Claims 25-28 and 51-59 are pending in the application. Claims 25-28 and 51-59 are rejected (*see* final Office Action dated December 9, 2005). Claims 25-28 and 51-59 are the claims on appeal (*see* Appendix).

IV. STATUS OF AMENDMENTS

No amendments were made to the pending claims after the issuance of the final Office Action dated December 9, 2005.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

Exemplary embodiments of the invention are directed to a camera, portable telephone, and a terminal including a fuel cell system. An embodiment of the invention is also directed specifically to the fuel cell system itself.

In particular, each of claims 25, 26 and 28 includes aspects directed to a fuel cell and a fuel cell system. Claim 51 is focused more closely on the specific elements of the fuel cell system. With reference to Figure 4, an exemplary fuel cell system of the invention includes a fuel storing section (e.g., 68) for storing fuel for generating power by the fuel cell (e.g., 12), formed with a flexible sheet member (e.g., 66), which at least a part thereof is deformable.¹ A fuel supply port (e.g., 74) is provided at the fuel storing section, and is detachably connected to a solution supply port (e.g., 52) of the fuel electrode of the fuel cell (e.g., 12).² A secondary cell (e.g., 28) is provided which stores power generated by the fuel cell.³

A feature of the claimed invention to be noted in each of the independent claims 25, 26, 28 and 51 is the positioning of the secondary cell in relation to the fuel cell. For example, as described in claim 25, the fuel cell system is disposed at a side of a lens of the camera, and the secondary cell is disposed adjacent to the fuel cell. Claim 26 describes that the fuel cell system is disposed at a portion of the portable telephone that includes a keyboard, and the secondary cell is disposed adjacent to the fuel cell. Similarly, claims 28 and 51 describe that the secondary cell

¹ See specification, e.g., p. 20, lines 3-7.

² See specification, e.g., p. 19, lines 18-21.

³ See specification, e.g., p. 18, lines 4-9, and p. 23, lines 11-17.

is disposed adjacent to the fuel cell. As shown in the exemplary embodiment of Figure 4, the secondary cell (e.g. 28) is positioned adjacent to the fuel cell (e.g. 12). This embodiment is described on page 23, second full paragraph, of the present specification.

The claimed configurations provide beneficial effects. First, as described in the specification as filed, the secondary cell has a function to condense power once generated by the fuel cell. The fuel cell further generates power if the power of the terminal is lowered. In other words, the power generated by the fuel cell is transported to the secondary cell to be condensed. Thus, in accordance with the present invention, it has been determined that it is better to place the secondary cell adjacent to the fuel cell to provide an efficient transfer of power, i.e., leakage of power during the transporting is reduced.

Further, if the secondary cell is placed between the fuel cell and the fuel pack, and if the secondary cell, the fuel cell and the fuel pack are formed integrally, the overall size of the power generating system can be reduced and become spatially compact. This effect is desirable especially for a camera, a portable telephone and the like, as claimed.

Even further, if a sheet-like secondary cell is employed, the secondary cell can be placed around the fuel cell so as to package the fuel cell. As a result, the power generating system can be made more compact.

Moreover, configurations exist where the fuel cell is heated by a heater for use in a cold environment. When the secondary cell is placed adjacent to the fuel cell, the secondary cell can also be heated by the same heater. This makes it possible to maintain good condensing efficiency of the secondary cell even in a cold environment.

It will be appreciated that the above-noted descriptions are given as non-limiting examples to aid the reader's understanding of exemplary embodiments of invention and their contributions.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

- Claims 25, 26, 28 and 51 are rejected under 35 U.S.C. 112, first paragraph.
- Claim 25 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Prasad (U.S. Publication No. 2003/0082427), Ohtani (U.S. Patent 6,118,949) and Peterson et al. (U.S. Patent 3,439,596 [hereinafter "Peterson"]) in view of Shioya (U.S. Patent 6,916,565).
- Claims 26 and 27 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Prasad in view of Shioya and further in view of Lonka (U.S. Patent 6,308,084).
- Claim 28 is rejected under 35 U.S.C. §103(a) as being unpatentable over Prasad in view of Shioya.
- Claims 51, 52 and 55-57 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Prasad in view of Shioya.
- Claims 53 and 54 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Prasad in view of Shioya and further in view of Bateman (U.S. Patent 5,909,818).
- Claim 58 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Prasad in view of Shioya and further in view of Faris (U.S. Patent 6,558,825).
- Claim 59 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Prasad in view of Shioya and Faris.

VII. ARGUMENT

A. CLAIMS 25, 26, 28 AND 51 ARE ENABLED

Appellant amended independent claims 25, 26, 28 and 51 to recite that the “secondary cell is disposed adjacent to the fuel cell.”⁴ The Examiner rejected claims 25, 26, 28 and 51 under 35 U.S.C. 112, first paragraph, because he contends that the specification, while being enabling for a secondary cell, does not reasonably provide enablement for the disposal of the secondary cell adjacent to the fuel cell.⁵

Claims 25, 26, 28 and 51 are properly enabled. The test for enablement is whether one skilled in the art can make and use the invention without undue experimentation⁶. One of ordinary skill in the art would not have to perform undue experimentation to place the claimed secondary cell adjacent the fuel cell. In fact, the language of the claim itself instructs one how to construct the invention, i.e., placing the secondary cell “adjacent” the fuel cell.

Moreover, Appellant points to the exemplary embodiment of Figure 4, which shows an example of a secondary cell (e.g. 28) being positioned adjacent to a fuel cell (e.g. 12). This embodiment is described on page 23, second full paragraph, of the present specification. Thus, based on the claim language itself and the present disclosure, one skilled in the art could place a secondary cell adjacent a fuel cell without undue experimentation.

⁴ See Amendment dated September 8, 2005.

⁵ See Office Action dated December 9, 2005.

⁶ See MPEP §2164.01.

Accordingly, it is respectfully submitted that claims 25, 26, 28 and 51 are enabled such that the rejection under of claims 25, 26, 28 and 51 under 35 U.S.C. 112, first paragraph, should be withdrawn.

**B. THE COMBINATION OF PRASAD, OHTANI, PETERSON AND SHIOYA
FAILS TO TEACH OR SUGGEST EACH FEATURE OF CLAIM 25**

Appellants respectfully submit that amended claim 25 provides a novel and unobvious camera including a combination of features that is neither taught nor suggested by the applied art. For example, claim 25 recites that the secondary cell is disposed adjacent to the fuel cell. The Examiner acknowledges that Prasad fails to disclose 1) a secondary cell; 2) a fuel cell system disposed at a side of a lens of a camera; and 3) the secondary cell being adjacent to the fuel cell.²

Shioya is relied on for disclosing a secondary cell. However, because neither Prasad nor Shioya are specifically directed to a camera, the feature of “the fuel cell system is disposed at a side of a lens of the camera,” is not taught nor suggested. Further, Appellants respectfully submit that Shioya fails to teach or suggest at least the features of claim 25 regarding the secondary cell being disposed adjacent to the fuel cell.

² See Office Action dated December 9, 2005, page 3, lines 18-20.

As an initial issue, Appellant is left to guess what part of Shioya the Examiner is applying against the claimed secondary cell. For the sake of responding, Appellant will presume that the Examiner is relying on the charge storage portion 182⁸ in Fig. 12 of Shioya.

The Examiner appears to acknowledge the references' failure to teach or suggest the claimed secondary cell that is disposed adjacent to the fuel cell and, thus, cites MPEP §2144.40 for apparently asserting that such a placement is a "design choice"² and an obvious rearrangement of parts. The Examiner is presumably referring to *In re Japikse*, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950), where claims to a hydraulic power press, which read on the prior art except with regard to the position of the starting switch, were held unpatentable because shifting the position of the starting switch would not have modified the operation of the device. However, §2144.40 also goes on to state that:

"The mere fact that a worker in the art could rearrange the parts of the reference device to meet the terms of the claims on appeal is not by itself sufficient to support a finding of obviousness. The prior art must provide a motivation or reason for the worker in the art, without the benefit of appellant's specification, to make the necessary changes in the reference device." *Ex parte Chicago Rawhide Mfg. Co.*, 223 USPQ 351, 353 (Bd. Pat. App. & Inter. 1984). (Emphasis added.)

The prior art *does not* provide motivation to place the secondary cell of Shioya adjacent the fuel cell of Prasad. The placement of the claimed features provides a unique combination of elements, resulting in beneficial effects, which the Inventors have conceived. Based on the general disclosure of the references, Appellant respectfully submits that there is no teaching or

⁸ The Examiner does not explicitly point to which element of Shioya is being applied against the claimed secondary cell.

² See Office Action dated December 9, 2005, page 4, lines 11-14.

suggestion to combine the references' teachings to provide the claimed features, including the secondary cell which is disposed adjacent to the fuel cell.

Appellant also submits that a rejection cannot be predicated on the mere identification of individual components of claimed limitations. (*See In re Kotzab*, 217 F.3d 1365, 1371 (Fed. Cir. 2000).) Rather, particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed. *Id.* This fundamental requirement of "particular findings" cannot be overlooked. Thus, the requisite teaching or suggestion is lacking to particularly locate a secondary cell of Shioya adjacent to a fuel cell in Prasad, to provide the combination as claimed.

Appellants also respectfully note that Ohtani and Peterson are not directed to power supplies utilizing a fuel cell. Also, Ohtani and Peterson are not even mentioned in the body of the rejection.

Therefore, for at least these reasons, the applied references fail to teach or suggest each of the recited features, such that the rejection of claim 25 under 35 U.S.C. § 103(a) should be withdrawn.

C. THE COMBINATION OF PRASAD, SHIOYA AND LONKA FAILS TO TEACH OR SUGGEST EACH FEATURE OF CLAIMS 26 AND 27.

Claims 26 and 27 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Prasad in view of Shioya and further in view of Lonka (U.S. Patent 6,308,084).

Appellant respectfully submits that the applied references fail to teach or suggest the unique combination of features found in amended claim 26. In particular, claim 26 was amended

in the September 30, 2005 Amendment to describe that the secondary cell is disposed adjacent to the fuel cell. The Examiner acknowledges that Prasad fails to disclose a secondary cell or a fuel cell system disposed at a portion of a portable telephone that includes a keyboard.¹⁰ The Examiner *also* inherently acknowledges the references' failure to teach or suggest a secondary cell disposed adjacent to the fuel cell, and again must attempt to relay on "design choice."¹¹

For reasons similar to those presented above, in regard to claim 25, Appellant respectfully submits that the combination of Prasad and Shioya fails to teach or suggest at least disposing a secondary cell adjacent to a fuel cell. In particular, there is no teaching or suggestion that would have motivated one to gratuitously place a secondary cell of Shioya adjacent a fuel cell in Prasad.

Lonka is applied for teaching a mobile communications device with a camera, a keypad and a power supply system. Appellant submits that this teaching in Lonka fails to make up for the deficient teachings of Prasad and Shioya, such that the applied references do not teach or suggest each feature of amended claim 26.

Accordingly, Appellant respectfully submits that the combination of Prasad, Shioya and Lonka fail to teach or suggest each feature recited in claim 26, such that the rejection thereof under 35 U.S.C. §103(a) should be withdrawn. The rejection of dependent claim 27 should likewise be withdrawn at least by virtue of its dependency upon claim 26.

¹⁰ See Office Action dated December 9, 2005, page 4, lines 21-22.

¹¹ See Office Action dated December 9, 2005, page 5, lines 19-21.

D. THE COMBINATION OF PRASAD AND SHIOYA FAILS TO TEACH OR SUGGEST EACH FEATURE OF CLAIM 28.

Claim 28 is drawn to a novel portable terminal including a unique combination of features, which is neither taught nor suggested by the applied art. In particular, claim 28 was amended in the September 30, 2005 Amendment to describe that the secondary cell is disposed adjacent to the fuel cell. Therefore, for reasons similar to those presented above in regard to 25, Appellant respectfully submits that the combination of Prasad and Shioya fails to teach or suggest each of the features found in claim 28, including the secondary cell that is disposed adjacent to the fuel cell. In particular, there is no teaching or suggestion that would have motivated one to gratuitously place a secondary cell of Shioya adjacent a fuel cell in Prasad, such that the rejection of claim 28 under 35 U.S.C. § 103(a) should be withdrawn.

E. THE COMBINATION OF PRASAD AND SHIOYA FAILS TO TEACH OR SUGGEST EACH FEATURE OF CLAIMS 51, 52 AND 55-57.

Independent claim 51 is drawn to a novel fuel cell system including a unique combination of features, which is neither taught nor suggested by the applied art. In particular, claim 51 was also amended in the September 30, 2005 Amendment to describe that the secondary cell is disposed adjacent to the fuel cell. Therefore, for reasons similar to those presented above in regard to 25, Appellant respectfully submits that the combination of Prasad and Shioya fails to teach or suggest each feature recited in claim 51, including the secondary cell that is disposed adjacent to the fuel cell. In particular, there is no teaching or suggestion that would have motivated one to gratuitously place a secondary cell of Shioya adjacent a fuel cell in Prasad, such

that the rejection of claim 51 under 35 U.S.C. § 103(a) should be withdrawn. Claims 52 and 55-57 are deemed patentable over the references at least due to their dependency on claim 51.

F. THE COMBINATION OF PRASAD, SHIOYA AND BATEMAN FAILS TO TEACH OR SUGGEST EACH FEATURE OF CLAIMS 53 AND 54.

Claims 53 and 54 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Prasad in view of Shioya and further in view of Bateman (U.S. Patent 5,909,818).

The grounds of rejection acknowledge that neither Prasad nor Shioya teaches an anti-freezing agent placed in a discharge-solution storage section. Bateman is, therefore, relied on for allegedly teaching this feature. Nonetheless, Appellant respectfully submits that the application of Bateman to Prasad and Shioya fails to make up for the deficient teachings with respect to claim 51, such that claims 53 and 54 are patentable over the applied references at least by virtue of their respective dependencies upon claim 51.

G. THE COMBINATION OF PRASAD, SHIOYA AND FARIS FAILS TO TEACH OR SUGGEST EACH FEATURE OF CLAIM 58.

The grounds of the rejection acknowledge that neither Prasad nor Shioya teaches a flexible casing. Therefore, Faris is relied on for allegedly teaching this feature. Nevertheless, Applicants respectfully submit that such an application of Faris to Prasad and Shioya fails to teach or suggest the features of amended claim 51, such that the rejection of claim 58 should be withdrawn at least by virtue of claim 58 depending from claim 51.

**H. THE COMBINATION OF PRASAD, SHIOYA AND FARIS FAILS TO
TEACH OR SUGGEST EACH FEATURE OF CLAIM 58.**

The Examiner acknowledges that none of the references teaches a heating mechanism for heating the discharged-solution storing section or casing. Nevertheless, it is submitted that claim 59 is patentable over the combination of Prasad, Shioya and Faris at least by virtue of its dependency upon claim 51, because Faris fails to make up for the above-noted deficiencies of Prasad and Shioya.

CONCLUSION

Unless a check is submitted herewith for the fee required under 37 C.F.R. §41.37(a) and 1.17(c), please charge said fee to Deposit Account No. 19-4880.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

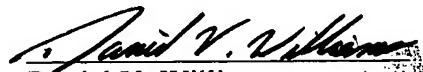
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Date: June 7, 2006

CLAIMS APPENDIX

CLAIMS 25-28 AND 51-59 ON APPEAL:

Claims 1-24. (canceled).

25. A camera including a solution supply port for a fuel electrode of a fuel cell and a solution discharge port for an air electrode of the fuel cell, the camera comprising,

a fuel cell; and

a fuel cell system, including

a fuel storing section for storing fuel for generating power by the fuel cell, formed with a flexible sheet member, which at least a part thereof is deformable,

a fuel supply port, which is provided at the fuel storing section, and is detachably connected to the solution supply port of the fuel electrode of the fuel cell, and

a secondary cell which stores power generated by the fuel cell,

wherein the fuel cell system is disposed at a side of a lens of the camera, and the secondary cell is disposed adjacent to the fuel cell.

26. A portable telephone including a solution supply port for a fuel electrode of a fuel cell and a solution discharge port for an air electrode of the fuel cell, the portable telephone comprising:

a fuel cell; and

a fuel cell system, including

a fuel storing section for storing fuel for generating power by the fuel cell, formed with a flexible sheet member, which at least a part thereof is deformable,

a fuel supply port, which is provided at the fuel storing section, and is detachably connected to the solution supply port of the fuel electrode of the fuel cell, and

a secondary cell which stores power generated by the fuel cell,

wherein the fuel cell system is disposed at a portion of the portable telephone that includes a keyboard, and the secondary cell is disposed adjacent to the fuel cell.

27. The portable telephone of claim 26, further comprising a camera.

28. A portable terminal including a solution supply port for a fuel electrode of a fuel cell and a solution discharge port for an air electrode of the fuel cell, the portable terminal comprising:

a fuel cell; and

a fuel cell system, including,

a fuel storing section for storing fuel for generating power by the fuel cell,

formed with a flexible sheet member, which at least a part thereof is deformable,

a fuel supply port, which is provided at the fuel storing section, and is detachably connected to the solution supply port of the fuel electrode of the fuel cell, and

a secondary cell which stores power generated by the fuel cell, wherein the secondary cell is disposed adjacent to the fuel cell.

Claims 29-50 (canceled).

51. A fuel cell system for an electronic device, comprising:

a fuel cell;

a fuel storing section for storing fuel for generating power by the fuel cell, formed with a flexible sheet member, which at least a portion thereof is deformable;

a fuel supply port, which is provided at the fuel storing section, and is detachably connected to a solution supply port of a fuel electrode of the fuel cell; and

a secondary cell which stores power generated by the fuel cell, wherein the secondary cell is disposed adjacent to the fuel cell.

52. The fuel cell system of claim 51, further comprising:

a discharged-solution storing section for storing solution discharged from the fuel cell;

and

a discharged-solution recovery port which is provided at the discharged-solution storing section, and is detachably connected to a solution discharge port of an air electrode of the fuel cell,

wherein the flexible sheet member separates and seals the fuel storing section and the discharged-solution storing section from each other.

53. The fuel cell system of claim 52, wherein an antifreezing agent is provided at the discharged-solution storing section.

54. The fuel cell system of claim 53, wherein the antifreezing agent is placed in the discharged-solution storing section.

55. The fuel cell system of claim 52, wherein a desiccant is placed in the discharged-solution storing section.

56. The fuel cell system of claim 55, further comprising a discharged-solution bag in which the desiccant is placed, wherein the discharged-solution storing section is formed by detachably attaching an opening portion of the discharged-solution bag to the discharged-solution recovery port.

57. The fuel cell system of claim 52, wherein the sheet member comprises an alcohol resistant material.

58. The fuel cell system of claim 52, wherein the fuel storing section is formed from a bag body, and a flexible casing is provided, which comprises the fuel supply port and the discharged-solution recovery port, houses the bag body, and forms the discharged-solution storing section placed on the outside of the bag.

59. The fuel cell system of claim 58, wherein where the electronic device further comprises a heating mechanism, which heats at least one of the discharged-solution storing section and/or the discharged solution stored in the casing, and the casing is adapted to be arranged in a position in the electronic device such that at least one of the discharged-solution storing section and/or the casing is heated.

APPEAL BRIEF UNDER 37 C.F.R. § 41.37
Appln. No.: 10/631,894

Attorney Docket No.: Q76385

EVIDENCE APPENDIX:

None.

APPEAL BRIEF UNDER 37 C.F.R. § 41.37
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RELATED PROCEEDINGS APPENDIX

None.